## <u>REMARKS</u>

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This paper is submitted in response to the Office Action mailed on September 7, 2005. Claims 1-20 are pending in this application.

Claims 1-5, 7-14, 16-18 and 20 stand rejected as being anticipated by U.S. Patent 5,704,189 to Collier ("Collier"), and claims 6, 15, and 19 stand rejected as being obvious over Collier. Applicants respectfully traverse these rejections in view of the following remarks.

Collier describes a method of identifying and installing a plurality of electrical or other signal carriers within a building structure. The method includes the steps of determining the paths along which the carriers are to be laid out within the structure, formulating a retrievable record of such paths and assigning a unique identifying expression to each of the carriers. The carriers are then installed (abstract, lines 1 to 12). The unique identifying expression is assigned to the carriers and associated with the paths to address the problem of distinguishing one cable from another during alteration or removal (column 2, lines 52 to 56). A code is used to identify the path of the carrier within an arbitrary grid of the structure (column 7, lines 39 to 60). The carrier may bear the identity of a corresponding location record (column 8, lines 15 to 25).

The method of the invention defined by the claims now pending concerns connectivity management the so as to be able to identify and trace connections (something well known to regularly change over time). In contrast, *Collier* is concerned with identifying physical cables and their locations in a fixed space relative to an original plan so that, for example, if the installer were to return 10 years later he or she would be able to identify a cable is and its physical route.

## Claims 1-9

The rejection of claim 1 as being anticipated by *Collier* is not well grounded because *Collier* does not describe a method in which cables are managed with the step of "providing one or more locations with a machine readable location identifier." In *Collier*, locations are not labeled. A carrier at a location may bear the identify of a location record but the location itself is not labeled.

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Further, *Collier* does not teach a method as recited in claim 1 of managing a cabling system including the steps of "reading by machine said cable identifier or identifiers and said location identifier or identifiers" and "generating a list of cable locations based on the read identifiers and storing said list for later retrieval." Rather, in *Collier*, paths along which carriers are to be laid are identified and recorded prior to installation. For example, the gun 150 disclosed in column 11, line 65 to column 12, line 25 of *Collier*, having scanned a barcode on a cable, "could be actuated to display the origin, destination, and all intermediate way point coordinates comprising the location record" (column 12, lines 23 to 25). However, the gun simply retrieves pre-recorded data generated prior to installation. Nowhere in *Collier* is it taught or suggested the steps of "reading by machine said cable identifier or identifiers and said location identifier or identifiers" or "generating a list of cable locations based on the read identifiers and storing said list for later retrieval." Indeed, because *Collier* teaches that any location records are applied to carrier, it is a pre-requisite in *Collier* that the location of the carrier be known and recorded prior to installation — otherwise this information would not be available to be applied to the carrier. For these further reasons, *Collier* does not anticipate or render obvious claim 1 or its dependent claims.

For these same reasons, *Collier* does not anticipate or render obvious dependent claims 2-9.

With further regard to dependent claim 2, Applicants note that *Collier* does not teach a method in which the list generated includes "data for determining cable connections from cable identifiers." *Collier* is concerned purely with carrier locations and does not consider cable connections. *Collier* therefore does not anticipate or render obvious the further features of claim 2.

With further regard to dependent claim 5, Applicants note that *Collier* does not teach a method in which there is the step of "providing a central processor connectable with the hand-held machine for the download of read identifiers, a master list being stored within the central processor." Instead, *Collier* teaches the use of a gun 150 having its own "memory of location records" (column 12, lines 4 to 5). *Collier* does not teach the provision of a central processor. Further, *Collier* does not teach download of read identifiers to a central processor. It is a prerequisite in *Collier* that the location of the carrier be known and recorded prior to installation – otherwise this information would not be available to be applied to the carrier. As such, there is no reason why read identifiers would be downloaded anywhere. Once the carriers are installed in

Collier, the location information is known and there would be nor reason to download information from a carrier in Collier. Collier therefore does not anticipate or render obvious the further features claim 5.

For the reasons discussed above, there is no reason why the gun 150 in Collier would need to be connected to a central processor. Thus, there would be no reason to consider a "wireless" connection as recited in claim 6. Such a modification would not be contemplated by the ordinary artisan (see MPEP 2143.01, "THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE"). Collier therefore does not render obvious the still further features of claim 6, nor is the proposed modification reasonable in view of the teachings of Collier.

With further regard to dependent claim 7, Applicants note that Collier does not teach a method including the step of "identifying components from the cable and location identifiers, the list including data relating to the components and thereby of the connections between components." Collier is concerned purely with carrier locations and does not consider components or cable connections. Collier therefore does not anticipate or render obvious the further features of claim 7.

Also, Collier does not teach a method as recited in claim 8 of "identifying changes that have occurred in the recorded connections within a specified period of time" precisely because Collier is not at all concerned with dynamic cable management. Rather, the method disclosed in Collier is reliant on the unique identifying expression on the carriers correlating with that recorded in the retrievable record. If a change in the cabling or its location were as made, the method disclosed in <u>Collier would not be able to identify this.</u> For example, following the labeling scheme disclosed in column 7, lines 55 to 60 of Collier, if the carrier 12 was moved such that its origin was no longer at coordinates A-0-1, the carrier would still be labeled as having its origin at A-0-1 and the gun 150 discussed in columns 11 and 12 would confirm this. Thus a change would not be identified or later recognzied. Collier therefore does not anticipate or render obvious the further features of claim 8.

Collier also does not teach a method as recited in claim 9, including the step of "integrating data and voice configuration information into a structured cabling and equipment browser to provide a single view of all information related to the structured cabling channel and services provided." As noted above, Collier is concerned purely with carrier locations and does not consider

services provided. Additionally, *Collier* does not teach providing a single view in a browser. *Collier* therefore does not anticipate or render obvious the further features of claim 9.

### Claims 10-18

Applicants respectfully submit that independent claim 10 also defines over *Collier* because *Collier* does not teach a cabling management system which includes "a machine readable location identifier for use at one or more locations." In *Collier*, locations are not labeled. A carrier at a location may bear the identify of a location record but the location itself is not labeled. For this reason alone, the rejection of claim 10 as being anticipated by *Collier* should be withdrawn.

Further, Collier does not teach a cable management system as recited in claim 10 including "an identifier reading device operable to machine read said cable identifier or identifiers and said location identifier or identifiers and to generate a list of cable locations based on the read identifiers" and "machine readable memory means operable to store said list for later retrieval." In Collier, paths along which carriers are to be laid are identified and recorded prior to installation. The gun 150 disclosed in column 11, line 65 to column 12, line 25 of Collier, having scanned a barcode on a cable, "could be actuated to display the origin, destination, and all intermediate way point coordinates comprising the location record" (column 12, lines 23 to 25). However, the gun simply retrieves pre-recorded data generated prior to installation. Nowhere in Collier is machine reading said cable identifier or identifiers and said location identifier or identifiers to generate a list of cable locations based on the read identifiers taught or suggested. Indeed, because Collier teaches that any location records are applied to carrier, it is a pre-requisite in Collier that the location of the carrier be known and recorded prior to installation — otherwise this information would not be available to be applied to the carrier.

For these reasons, therefore, *Collier* does not anticipate or render obvious claim 10 or the claims that depend therefrom, which further distinguish over *Collier* for substantially the same reasons noted above with respect to dependent claims 2-9.

With further regard to the claims dependent upon claim 10, claim 11 recites that "the list generated includes data for determining cable connections from cable identifiers" whereas *Collier* does not teach such a system. Rather, *Collier* is concerned purely with carrier locations and does

not consider cable connections. Collier therefore does not anticipate or render obvious the further features of claim 11.

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With respect to claim 14, Collier does not anticpate or render obvious the further features recited in that claim including "a central processor connectable with the hand-held device for the download of read identifiers, a master list being stored in a machine readable memory accessible to, or within, the central processor." The gun 150 has a local "memory of location records" (column 12, lines 4 to 5) and teaches away from the use of a central processor. Further, Collier does not teach the "download of read identifiers" to a central processor. It is a pre-requisite in Collier that the location of the carrier be known and recorded prior to installation - otherwise this information would not be available to be applied to the carrier. As such, there is no reason why read identifiers would be downloaded anywhere. Once the carriers are installed in Collier, the location information is known and there would be nor reason to download information from a carrier in Collier.

For the reasons discussed above, there is no reason why the gun 150 in Collier would need to be connected to a central processor. Thus, there would be no reason to consider a "wireless" connection as recited in claim 15. Such a modification would not be contemplated by the ordinary artisan (see MPEP 2143.01, "THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE"). Collier therefore does not render obvious the still further features of claim 15, nor is the proposed modification reasonable in view of the teachings of Collier.

With respect to the further features of claim 17, Collier does not teach a system in which "the central processor is operable to identify changes that have occurred in the recorded connections within a specified period of time." Firstly, Collier does not teach a central processor. Secondly, the Collier is reliant on the unique identifying expression on the carriers correlating with that recorded in the retrievable record. If a change was made, Collier would not be able to identify this. For example, following the labeling scheme disclosed in column 7, lines 55 to 60 of Collier, if the carrier 12 was moved such that its origin was no longer at coordinates A-0-1, the carrier would still be labeled as having its origin at A-0-1 and the gun 150 discussed in columns 11 and 12 would confirm this. Thus a change would not be identified. Collier therefore does not anticipate or render obvious claim 17.

With respect to the further features recited in claim 18, Collier does not teach a system in which "the central processor is operable to integrate data and voice configuration information into a structured cabling and equipment browser to provide a single view of all information related to the structured cabling channel and services provided." Collier does not teach use of a central processor. Additionally, Collier is concerned purely with carrier locations and does not consider services provided. Further, Collier does not teach providing a single view in a browser. Collier therefore does not anticipate or render obvious claim 18.

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#### Claim 19

Also, with respect to claim 19, Collier does not teach a system for managing structured cabling which includes "one or more hand-held devices equipped with a machine-readable identifier reader to record moves and changes by scanning port and cable identifiers." Collier does not teach use of port identifiers, it is solely concerned with identifying carriers. Further, Collier is concerned only with recordal of data at the time of designing/installing. Collier is silent on subsequent management of carriers. Indeed, as all information is borne by the carrier, the unique identifying expression used in *Collier* is only capable of identifying the initial location of the carrier. As such, even if modification to Collier was considered, the unique identifying expression would not be able to be used to record moves and changes. Further still, Collier does not teach "one or more computer readable memories for storing details of equipment, its location and type in a relational database on the hand-held scanners and a PC system" as recited in claim 19. Collier is concerned only with carrier identity and location and does not teach storage of details of equipment. Collier is also silent on how the retrievable records are stored. Collier does not teach use of "a relational database." Additionally, Collier does not teach "means for synchronising the hand-held databases with a desktop system or server so that changes made on any system are recorded on all systems" or a "wireless local area network technology to synchronise the hand-held system database with the desktop system or server."

In short, Collier does not consider updating stored information, let alone synchronization. Rather, Collier teaches that information is stored in the memory in gun memory or on a computer (column 12, lines 18 to 27). Collier therefore does not render obvious claim 19.

# Claim 20

With respect to claim 20, *Collier* does not teach a method of recording or auditing connections in a structured cabling system as recited in claim 20 including the steps of labelling each port in the cross connect with a unique identifier. In *Collier*, the equipment is not labeled. Further, *Collier* does not teach a method as recited in claim 20 of using a hand-held scanner to record sequentially the identifiers of each port and the identifiers of the cable connected to it; inferring which ports are connected together by correlating the identifiers on the cables without the need to trace the physical cables. Instead *Collier* is focused on tracing of physical cables and is not concerned with their interconnections. Nowhere in *Collier* is it taught or suggested the steps of using recorded data to infer which ports are connected together by correlating the identifiers on the cables. Indeed, because *Collier* teaches that any location records are applied to at manufacture carrier, it is a pre-requisite in *Collier* that the location of the carrier be known and recorded prior to installation and such inferences are not needed. Further, *Collier* does not teach utilizing a one-click approach to making, breaking and auditing connections optimized for the changing of connections in patch panels. As stated above, *Collier* is concerned with carriers and their locations and is silent about their interconnections.

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A beneficial effect of the method and system as recited in claims 10, 19 and 20 is that existing cable system installations can be managed without the cables needing to be labeled at, or prior to, installation time. Furthermore, if a cable or connection was changed without the recorded data being updated, the recited methods and systems are not only able to identify these changes after the fact but they are also able to revise the recorded data accordingly. *Collier* does not address or even recognize this problem, let alone solve this problem.

Reconsideration of the outstanding rejections in view of the foregoing is respectfully solicited.

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